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--This application is a continuation of application serial no. 09/151,376, filed September 10, 1998, which is a continuation-in-part of application serial no. 08/669,753, filed June 26, 1996, which is a continuation-in-part of application serial no. 08/495,034, filed June 27, 1995, the disclosure of which is herein incorporated by reference. This application is also a continuation-in part of application serial number 09/033,428, filed March 2, 1998, which claims the benefit of provisional application serial number 60/039,597, filed March 3, 1997; and a continuation-in-part of application serial number 09/033,555, filed March 2, 1998, which claims the benefit of provisional application serial number 60/039,763 filed March 3, 1997; and a continuation-in-part of application serial number 09/033,333, filed March 2, 1998, which claims the benefit of provisional application serial number 60/039,762, filed March 3, 1997. All of the above patent applications are incorporated by reference herein.--

In the claims

Please cancel claims 9-54 without prejudice or disclaimer.

Please add the following new claims:

55. (New) The adenovirus vector of claim 3, wherein the adenovirus early gene is E2.
56. (New) The adenovirus vector of claim 2, wherein the TRE is selected from the group consisting of a promoter and an enhancer.
57. (New) The adenovirus vector of claim 2, wherein the cell-type specific TRE is selected from the group consisting of an alpha fetoprotein TRE, a DF3-TRE, a tyrosinase-TRE, a CEA-TRE, a surfactant protein-TRE, and an ErbB2-TRE.
58. (New) The adenovirus vector of claim 56, wherein the promoter is selected from the group consisting of alpha fetoprotein, DF3, tyrosinase, CEA, surfactant protein, and ErbB2 promoters.
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59. (New) The vector of claim 2, wherein said vector contains a heterologous coding sequence that is expressed from said vector.

60. (New) The vector of claim 2, wherein said vector is encapsulated in an adenovirus coat.

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CONT.
61. (New) An cell comprising an adenovirus vector comprising an adenovirus gene essential for adenoviral replication under transcriptional control of a cell type-specific transcriptional response element (TRE), wherein said adenovirus gene essential for adenoviral replication is selected from the group consisting of E1A, E1B, E2 and E4, and wherein said TRE functions in said cell so that replication of the vector occurs in said cell.

62. (New) The cell of claim 61, wherein said TRE is selected from the group consisting of a promoter and an enhancer.

63. (New) The cell of claim 62, wherein the promoter is selected from the group consisting of alpha fetoprotein, DF3, tyrosinase, CEA, surfactant protein, and ErbB2 promoters.

64. (New) The cell of claim 61, wherein said cell is a tumor cell.

65. (New) The cell of claim 61, wherein said vector encodes a heterologous gene product, and wherein said vector expresses said heterologous gene product in the cells of a target tissue.

66. (New) The cell of claim 65, wherein said heterologous gene product provides anti-tumor activity in the cells of said tissue.

67. (New) A method of producing a cell-type specific adenovirus vector, said vector comprising an adenovirus gene essential for adenoviral replication under transcriptional control of a cell-type specific TRE, comprising culturing the cell of claim 61 and recovering said vector from said cell.

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68. (New) An cell comprising a cell-type specific adenovirus vector encapsulated in an adenovirus coat, said vector comprising an adenovirus gene essential for adenoviral replication under transcriptional control of a cell type-specific transcriptional response element (TRE), wherein said adenovirus gene essential for adenoviral replication is selected from the group consisting of E1A, E1B, E2 and E4, and wherein said TRE functions in said cell so that replication of the encapsulated vector occurs in said cell.

69. (New) The cell of claim 68, wherein said TRE is selected from the group consisting of a promoter and an enhancer.

70. (New) The cell of claim 69, wherein the promoter is selected from the group consisting of alpha fetoprotein, DF3, tyrosinase, CEA, surfactant protein, and ErbB2 promoters.

71. (New) The cell of claim 68, wherein said cell is a tumor cell.

72. (New) The cell of claim 68, wherein said encapsulated vector encodes a heterologous gene product, and wherein said vector expresses said heterologous gene product in the cells of a target tissue.

73. (New) The cell of claim 72, wherein said heterologous gene product provides anti-tumor activity in the cells of said tissue.